

## REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated September 16, 2008. A Request for Continued Examination (RCE) is being filed concurrently herewith. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Applicants thank the Examiner for his consideration in conducting an interview with Applicants' undersigned representative on March 9, 2009. During the interview, Applicants' representative presented proposed claim amendments directed to distinguishing the present invention from the prior art of record, and discussed the point of novelty of the invention. The Examiner noted that the proposed amendments to the claims appeared to distinguish over the prior art of record, but that he would have to conduct an updated search upon our filing a formal response to the outstanding Office Action.

### Status of the Claims

As outlined above, claims 1-2, 4-6, 8, 12, 14 and 16-20 are pending in this application, wherein claims 3 and 15 are being canceled without prejudice or disclaimer, and claims 1-2, 4-6, 8, 12, 15-17 and 19 are being amended to correct formal errors and to more particularly point out and distinctly claim the subject invention. All the amendments to the claims are supported throughout the disclosure of the invention, including page 13, line 12 to page 15, line 24. Applicants submit that no new matter is being introduced into this application through the submission of this response.

### Formal Rejections

The Examiner rejected claims 1-6, 8, 12 and 14-20 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Further, the Examiner rejected claims 1-6 and 8 under 35 U.S.C. §112, second paragraph, as being indefinite.

As outlined above, claims 1-2, 4-6, 8, 12, 14 and 16-20 are pending in this application, wherein claims 3 and 15 are being canceled without prejudice or disclaimer, and claims 1-2, 4-6, 8, 12, 15-17 and 19 are being amended to correct formal errors and to more particularly point out and distinctly claim the subject invention. Applicants submit that the

claims are now in compliance with all formal requirements, and now more particularly point out and distinctly claim the subject invention. Consequently, the formal rejections against the claims are hereby rendered moot.

#### Prior Art Rejections

The Examiner rejected claim 12 under 35 U.S.C. §103 (a) as being unpatentable over an article entitled "ProCashin/signature ..." in view of an article entitled "PIDSY Post Identification System" by Giesecke et al.; claims 14-18 over the Background of the Specification and Fig. 1 in view of PIDSY and ProCashin; claims 1-6, 8 and 20 further in view of Jones et al. (US 2003/0059098); and claim 19 further in view of Onishi et al. (US 2002/0136457). Applicants have reviewed the above-outlined rejections and hereby respectfully traverse.

The present invention as recited in claim 1 is directed to (for example referring to Figure 2 and its corresponding narrative in the specification) an automatic teller machine (ATM) 202 electronically connected to one or more devices, the one or more devices comprising: a deposit device 206 configured to receive an initial bank note 204 and a counterfeit bank note which is physically the same bank note after having been identified as a counterfeit bank note at an external station; an image extraction device 208 configured to extract one or more initial images 216 from the initial bank note 204 and one or more images 220 from the counterfeit bank note; a transaction log device 210 configured to attach a transaction log 214 to the one or more initial images of the initial bank note 204; a comparison device 222 configured to compare the one or more initial images of the initial bank note 204 to the one or more images 216 of the counterfeit bank note in order to obtain a comparison result, the comparison device 222 being configured to calculate values indicating the degree of similarity between the initial bank note and the counterfeit bank note as said comparison result; and a retrieval device (see Figure 3) for tracing the counterfeit bank note, which is configured to retrieve the transaction log attached to the initial bank note, if comparison device determines that the one or more initial images of the initial bank note are within the range of similarity to the one or more images of the counterfeit bank note (see page 16, line 2 – page 17, line 15).

The present invention as recited in claim 12 is directed to a method of tracing bank notes (for example referring to Figures 2-3 and their corresponding narratives in the specification), comprising the steps of: receiving a deposit of an initial bank note 301; extracting one or more initial images from the initial bank note 302; attaching an initial

transaction log to the one or more initial images 306; receiving one or more subsequent images of a counterfeit bank note, which is physically the same bank note as the initial bank note after having been identified as counterfeit bank note, wherein the step of receiving one or more subsequent images comprises receiving a deposit of a subsequent bank note 310; extracting one or more subsequent images from the subsequent bank note 312; comparing the one or more initial images of the initial bank note to the one or more subsequent images of the counterfeit bank note 314 by calculating values indicating the degree of similarity between the initial banknote and the counterfeit bank note in order to obtain a comparison result 316; and retrieving the initial transaction log based on the comparison result 320, if the comparison result indicates that the one or more initial images of the initial bank note are within a range of similarity to the one or more subsequent images of the counterfeit bank note, wherein the steps of extracting one or more initial images from the initial bank note and extracting one or more subsequent images of the counterfeit bank note are carried out using the same image extraction device (see page 16, line 2 – page 17, line 15).

Among the features of the present invention, the same image extracting device is used to extract both the initial images from the initial bank note and the images from the counterfeit bank note. Applicants have found that if a image extraction device is used to extract the initial images of a bank note, and then the same image extraction device is used to extract the second images of bank note, the degree of coincidence between the two images can be made high. Applicants have found that a very high degree of accuracy is required in the field of the image extraction of bank notes. Even when the same image extraction device extracts images of the same bank note two or more times, two or more extraction results are not necessarily completely the same. Extraction results differ each time. Therefore, another feature of the present invention is the structure or step of comparing the one or more initial images of the initial bank note to the one or more images of the counterfeit bank note in order to obtain a comparison result that then determines further operation based on the comparison being "within the range of similarity", namely the structure or step for retrieving the transaction log attached to the initial bank note, if comparison device determines that the one or more initial images of the initial bank note and the one or more images of the counterfeit bank note are within the range of similarity in order to trace the counterfeit bank note.

In contrast to the present invention, the cited reference of "ProCashin" fails to disclose, teach or suggest any structure or operation that combines elements of receiving a deposit of an initial bank note; extracting one or more initial images from the initial bank note using a image extraction device; attaching an initial transaction log to the one or more initial

images; receiving one or more images of a counterfeit bank note using the same image extraction device, which is physically the same bank note after having been identified as counterfeit bank note; comparing the one or more initial images of the initial bank note to the one or more images of the counterfeit bank note in order to obtain a comparison result; and retrieving the initial transaction log based on the comparison result, if the comparison result indicates that the one or more images of the initial bank note and the one or more images of the counterfeit bank note are within a range of similarity.

Rather, "ProCashin" merely discloses a conventional system for the operation of ATMs and the bill backtracing of currency deposited through those ATMs. Bills deposited through an ATM can be detected as being counterfeit, but none of those parameters (see page 3/39) include any structure or operation that includes at least extracting one or more initial images from the initial bank note using a sensor; attaching an initial transaction log to the one or more initial images; receiving one or more second images of a counterfeit bank note using the same sensor, which is physically the same bank note after having been identified as counterfeit bank note; comparing the one or more initial images of the initial bank note to the one or more second images of the counterfeit bank note in order to obtain a comparison result; and retrieving the initial transaction log based on the comparison result, if the comparison result indicates that the one or more images of the initial bank note and the one or more images of the counterfeit bank note are within a range of similarity.

The Examiner cited the article of Giesecke et al. as showing the feature of "within the range of similarity." However, Applicants will contend that this reference fails to provide such a teaching or suggestion. Instead, this reference only generally discusses the removal of counterfeit bills from circulation by their detection and tracing to a particular ATM and depositor. In particular, Giesecke only discloses on page 2, lines 14-17 that "[t]he software, developed by Giesecke & Devrient (G&D), registers the specific characteristics of each accepted bill, which are stored in the deposit and withdrawal ATM together with the transaction data of the depositor." This reference does show or suggest any structure or operation similar to the present invention for retrieving the transaction log attached to the initial bank note, if the comparison device determines that the one or more initial images are within a range of similarity to the one or more subsequent images, as does the present invention.

Regarding the Examiner's citation of the Background portion of this application's specification, Applicants will point out that Figure 1 only shows an arrow 118 that is directed to "BANK BRANCH OFFICE 103" but does not extend to "ATM 102". Although it is

shown that "INITIAL BANK NOTE 104" is deposited to ATM 102, "COUNTERFEIT" is returned to "BANK BRANCH OFFICE 103" instead of "ATM 102". After "COUNTERFEIT" returns to "BANK BRANCH OFFICE 103", it is not shown what kind of processing is performed, and this process does show "using the same image extraction device." This is illustrated by the recitation on page 3, lines 3-4 wherein "[t]he subsequent bank note 118 is taken back to the bank branch office 103. The serial number of the subsequent bank note 103 is read out of the cartridge memory to trace the past passing route of the bank note." Even more, page 3, lines 12-14 discloses "On the basis of these recordings, the transaction data and thus, also the depositor of the bill can be discovered and the origin of the counterfeit can be traced." This recitation does not embody any of the features of the present invention and specifically the feature of comparing the one or more initial images of the initial bank note to the one or more second images of the counterfeit bank note in order to obtain a comparison result; and retrieving the initial transaction log based on the comparison result, if the comparison result indicates that the one or more images of the initial bank note and the one or more images of the counterfeit bank note are within a range of similarity.

With respect to the reference of Jones, this reference only discloses a conventional system for tracking currency bills comprising a currency scanning device is provided. The scanning device includes a sensor that retrieves currency identification characteristic information of each bill processed. The currency identification characteristic information permits the unique identification of each bill processed. The system further comprises a customer identification means and means for associating each processed bill with the customer depositing the bill. Means for identifying the customer (or customer account) associated with a particular processed bill after the deposit transaction has been completed is also included in the system (see for example Paragraph [0010]).

Onishi was only cited for showing the features in a dependent claim. This reference fails to provide any disclosure, teaching or suggestion to make up for the deficiencies in Jones.

All in all, Giesecke fails to provide any disclosure, teaching or suggestion that makes up for the deficiencies in ProCashin such that their combination could show every feature of the present invention as now claimed. Even if these two references were combined, they would still fall short of showing or suggesting any structure or operation embodying at least the combination of receiving a deposit of an initial bank note; extracting one or more initial images from the initial bank note using a image extraction device; attaching an initial

transaction log to the one or more initial images; receiving one or more images of a counterfeit bank note using the same image extraction device, which is physically the same bank note after having been identified as a counterfeit bank note; comparing the one or more initial images of the initial bank note to the one or more images of the counterfeit bank note in order to obtain a comparison result; and retrieving the initial transaction log based on the comparison result, if the comparison result indicates that the one or more images of the initial bank note and the one or more images of the counterfeit bank note are within a range of similarity.

None of the other secondary or tertiary references provide any disclosure, teaching or suggestion that would make up for the deficiencies in either ProCashin or Giesecke such that their combination could embody each and every feature of the present invention as now claimed.

Even considering the standards set forth under the Supreme Court's *KSR* decision, Applicant will contend that the body of prior art teachings presented by the combination of ProCashin and Giesecke fails to (a) yield predictable results even relevant to the present invention, (b) solve any problem even remotely similar to that addressed by the present invention, or (c) show much less suggest that the present invention embodies a combination that one of ordinary skill in the art would have found "obvious to try" in light of ProCashin and Giesecke.

Further, in light of the combination of ProCashin with Giesecke, Applicant will contend that there is no other evidence that could have been added that would have made the combination of ProCashin and Giesecke, with or without the other cited references, more relevant to the present invention as claimed. In other words, given what would result from the combination of ProCashin and Giesecke, one of skill in the art would still be unable to achieve the present invention even knowing, among other things, (1) the inventor's training or education in the relevant field; (2) whether the present invention had reasonable expectation of success; (3) whether the invention was a predictable result; (4) whether the invention could have been achieved by mere routine research methodology; (5) any prior art outside of the field of the invention that allegedly solved the same problem as the invention; (6) any general technical principles and concepts found in textbooks, trade literature and other sources that would have been available to one of skill in the art; or (7) any secondary considerations under *Graham*.

Thus, even if all the references were combined, these references would still lack the combination of elements that make up the present invention as claimed, all as discussed

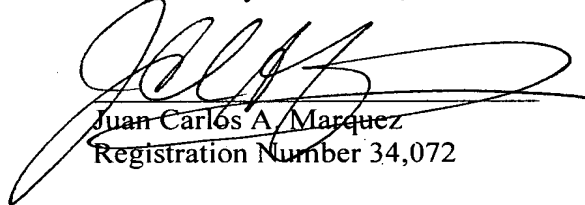
hereinabove. Consequently, the present invention is distinguishable and thereby allowable over the prior art of record.

Conclusion

In view of all the above, Applicant respectfully submits that certain clear and distinct differences as discussed exist between the present invention as now claimed and the prior art references upon which the rejections in the Office Action rely. These differences are more than sufficient that the present invention as now claimed would not have been anticipated nor rendered obvious given the prior art. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application as amended is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and phone number indicated below.

Respectfully submitted,



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